

*Amendment and Response**Serial No.: 09/727,739**Confirmation No.: 4181**Filed: December 1, 2000**For: SOMATOSTATIN AND METHODS*

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Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the above-identified application:

1. (Currently Amended) An isolated or purified somatostatin polypeptide comprising a polypeptide selected from the group consisting of:
 - (a) a polypeptide comprising SEQ ID NO:15;
 - (b) a subunit of the polypeptide of (a) comprising SEQ ID NO:16 and at least 7 contiguous amino acids from SEQ ID NO:17; and
 - (c) an analog of the polypeptide of (a) that has an amino acid sequence at least about 85% identical to SEQ ID NO:15; and
 - ~~(d) an analog of the subunit of (b) having an amino acid sequence at least about 90% identical to the amino acid sequence of the subunit;~~~~wherein the somatostatin polypeptide binds to a somatostatin receptor.~~
2. (Previously Presented) The somatostatin polypeptide of claim 1, wherein the somatostatin polypeptide comprises at least one amino acid sequence selected from the group consisting of SEQ ID NOs:2, 16, 17, 18, and 19.
3. (Previously Presented) An isolated or purified polypeptide comprising at least one amino acid sequence selected from the group consisting of SEQ ID NOs:15, 17, and 19.
- 4-11. (Canceled)
12. (Previously Presented) A fusion polypeptide comprising an N-terminal somatostatin region comprising at least one first amino acid sequence comprising a somatostatin polypeptide of claim 1 covalently linked to a C-terminal region comprising a second amino acid sequence.

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13. (Original) The fusion polypeptide of claim 12 wherein the second amino acid sequence encodes a bioactive moiety.
14. (Previously Presented) The fusion polypeptide of claim 12 wherein the first amino acid sequence comprises at least one amino acid sequence selected from the group consisting of NOs: 15, 16, 17, 18, and 19.
15. (Previously Presented) The fusion polypeptide of claim 13 wherein the first amino acid sequence comprises SEQ ID NO:18.
16. (New) A method for identifying a modified somatostatin polypeptide comprising:
- (a) providing an amino acid sequence of a somatostatin polypeptide, wherein the somatostatin polypeptide comprises a polypeptide selected from the group consisting of a polypeptide comprising SEQ ID NO:15, a polypeptide comprising SEQ ID NO:16 and at least 7 contiguous amino acids from SEQ ID NO:17, and a polypeptide comprising an amino acid sequence at least about 85% identical to SEQ ID NO:15;
 - (b) aligning the amino acid sequence of the somatostatin polypeptide of step (a) with the amino acid sequence of a reference somatostatin polypeptide;
 - (c) identifying at least one site or region of differing amino acid sequence; and
 - (d) modifying the amino acid sequence of the somatostatin polypeptide of step (a) or the reference somatostatin polypeptide at the identified site or region to incorporate at least one amino acid substitution, insertion, or deletion from the analogous site or region in the other somatostatin polypeptide to yield the amino acid sequence of a modified somatostatin polypeptide.
17. (New) The method of claim 16 further comprising (e) synthesizing the modified somatostatin polypeptide and (f) assaying the modified somatostatin polypeptide for biological activity.

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18. (New) The method of claim 17 wherein step (e) comprises assaying the binding of the modified somatostatin polypeptide to a human somatostatin receptor.

19. (New) The method of claim 16 wherein the reference somatostatin polypeptide is a mammalian somatostatin polypeptide.

20. (New) The method of claim 16 wherein the modified somatostatin polypeptide is a somatostatin agonist or antagonist.